# GROUND WATER USE IN GEORGIA, 1987

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Increasing demands for water in Georgia are creating competition among current and potential water users in areas where the available water supply is not adequate to meet demands. Ground water is the source of over 18% of all freshwater used in the state. Estimated ground water withdrawals for 1987 totaled 1229 million gallons per day (Mgal/day), an increase of slightly over 1% from 1986. Irrigation was the largest use category, totaling 40.2% of all ground water withdrawn, while industrial withdrawals totaled 29.7%, public supply 17.7%, and other uses 12.4%.

The most productive aquifers in the State are the Floridan, Clayton, Claiborne, and Cretaceous aquifer systems, located in the Coastal Plain Province. The Floridan aquifer system supplied 73.7% of all permitted ground water use in 1987, with 344 Mgal/day withdrawn. The Cretaceous aquifer system supplied 17.9% of permitted ground water use or 83.6 Mgal/day, the Claiborne aquifer supplied 3.1% or 14.4 Mgal/day, and the Clayton supplied 2.7% or 12.8 Mgal/day. Ground water in the northern portion of the State is withdrawn from the Paleozoic and Crystalline rock aquifers, which supplied 8.6 Mgal/day or 1.9%, and 3.1 Mgal/day or 0.7% respectively, of permitted ground water use.

Recharge to the ground water system in Georgia is derived from precipitation. Monthly average precipitation during 1987 was significantly below normal over most areas of the State, and much of the State has suffered from drought conditions since 1986. The drought has affected ground water availability for public and domestic supply, industrial, and agricultural water users.

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